

REMARKS

In an Office Action mailed September 2, 2003, the Examiner rejected Claims 4 and 12 under 35 U.S.C. §112, second paragraph for indefiniteness arising from the use of a trademark in the claims. The Examiner also rejected Claims 1, 5-9 and 13-15 under 35 U.S.C. §103(a) as being unpatentable over patents to Larsen and Kawakami. Claims 2 and 10 were rejected under §103(a) over Larsen in view of Kawakami as above and further in view of either US Patent No. 3,389,145 or JP 03-071559. Claims 3 and 11 were objected to as being dependent upon a rejected base claim, but are said to be allowable if re-written in independent form. Each issue raised by the Examiner is considered separately below. Reconsideration of the merits of this patent application is respectfully requested.

A petition for extension of time for one month accompanies this response so the response will be deemed to have been timely filed. No fees other than the fee for extension of time and additional claim fees are believed due in connection with this response. However, should any other fee be due, please consider this to be a request to charge the fee to Deposit Account No. 17-0055. Also, should any additional extension of time be required, please consider this to be a request for the appropriate extension of time and a request to charge the fee to the same deposit account.

Rejections Under 35 U.S.C. §112, second paragraph

The Examiner objected to the use of the trademark Alkaterge T-IV in the claims. Applicant has amended the claims slightly to correspond to an accepted practice in the Patent Office of referring in claims to something “sold under the trademark” or “sold under the name.” The Examiner’s attention is directed to a recent US patent employing this claim format, namely US Patent No. 6,572,868, which claims, *inter alia* in Claim 6, a restructuring cosmetic composition which “comprises . . . (i) sodium hyaluronate sold under the trademark EASHAVE™ from about 0.1 to about 5 weight percent . . .”. Claim 10 recites a restructuring cosmetic composition as claimed in Claim 9 “wherein said ceramide 3 is a pure human skin-identical ceramide 3 sold under the name CERAMIDE III and wherein said ceramide 6 is a pure human skin-identical ceramide 6 sold under the name CERAMIDE VI.” Other patents demonstrating the same point are readily obtained by searching claims in issued US patents for the mentioned phrases.

Reconsideration of the rejection under §112, second paragraph is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1, 5-9 and 13-15 are rejected over US Patent No. 4,857,424 (Larsen) in view of US Patent No. 5,698,339 (Kawakami). Applicant respectfully traverses the rejection for several reasons. The Examiner acknowledges that Larsen does not disclose the surfactant to be an oxazoline nor that the surfactant coats at least a portion of the active material. Kawakami discloses an insulating or semi-conductor material that can be poly(2-methyl-2-oxazoline), a polyoxazoline polymer. The amended claims clarify that the oxazoline agent employed in the claimed anode mix is non-polymeric. As the Examiner has already indicated that Larsen does not disclose an oxazoline surfactant and since Kawakami discloses no non-polymeric oxazoline compound, there is no incentive to combine these two patents to arrive at the claimed invention. The amendment to the anode mix of Claim 1 is accordingly believed sufficient to overcome the rejections to Claims 1 and 5-8.

It will be apparent to the Examiner and to a skilled artisan that polyoxazolines are not suited for use in the claimed invention. Paragraph [00022] states that “[a] suitable oxazoline surfactant can be solubilized in an anode-compatible electrolyte and is a liquid or can be liquefied under the anode processing conditions.” This is not the case for polyoxazolines. Indeed, Katakama states clearly at col. 15, lines 33-36 that “[t]he insulating or semiconductor material used in the present invention should also be stable, such that it is not reactive with and insoluble to an electrolyte or electrolyte solution for a rechargeable battery.” (emphasis added).

Paragraph [0007] also distinguished the disclosure in US Patent No. 5,382,482 of a polymer film layer that can contain polyoxazoline. The applicant noted there that “the [‘482] patent does not describe including an oxazoline surfactant in the anode mix of the cell.” Reference throughout the application is to oxazoline rather than to polyoxazoline and oxazoline compounds disclosed in the various patents incorporated by reference in paragraph [00022] are non-polymeric oxazolines.

Claim 9 is amended to reflect that the claimed alkaline electrochemical cell is a primary cell. Kawakami quite clearly and explicitly relates only to rechargeable (i.e., secondary) electrochemical cells. Accordingly, the disclosure of Kawakami says nothing about providing any oxazoline compound in a primary alkaline electrochemical cell. Accordingly, there is no incentive to combine Kawakami with Larsen to yield a primary alkaline electrochemical cell containing an oxazoline in the anode mix.

Applicant notes, in concluding, that the stated motivation for combining these two patents is to provide a protective barrier between the active material and the electrolyte in the anode while permitting ionic conductivity in the anode active layer. While a polyoxazoline could form such a protective barrier, such a barrier is irrelevant in the context of a primary electrochemical cell. In a rechargeable cell, as in Kawakami, a barrier desirably prevents penetration of redeposited zinc between the cathode and anode in the form of dendrites that can lead to cell shorting. Kawakami is concerned only with preventing dendrite formation, and not in any way with preventing chemical attack on the anodic zinc that can lead to corrosion and gassing. Thus, neither Kawakami nor Larsen provides a motivation to provide a non-polymeric oxazoline in the claimed anode mix.

Claims 2 and 10 also stand rejected in view of Larsen in combination with Kawakami and further in view of either Katz or JP '559. For the reasons noted above, applicant maintains that the underlying rejection does not disclose, teach or suggest employing a non-polymeric oxazoline surfactant in an anode mix, nor does it disclose, teach or suggest employing any oxazoline in a primary alkaline electrochemical cell. Accordingly, the mere prior existence of a fatty oxazoline surfactant, such as those of Katz, does not provide sufficient motivation, if any, to incorporate such an oxazoline into the claimed anode mix or into the anode mix of a primary alkaline electrochemical cell. In particular, Katz states at col. 2, l. 37-43 that the fatty oxazoline surfactants are "surprisingly effective as detergents, emulsifiers and corrosion inhibitors in very small concentrations. They may be used in shampoos, in soaps, in emulsion polymerization, as oven cleaners, as industrial cleaners, in electroplating, in cosmetics, for textile scouring, dyeing and lubrication, in sanitizers, in paints, and in leather treating. Notably absent from the list is any suggestion of a use in connection with an anode or electrochemical cell.

To address the Examiner's contention that Larsen and Katz are drawn to providing anticorrosive materials to the anode mixture to prevent corrosion of the anode active material, applicant states that Larsen discloses an entirely different class of additive (organosilicate) which cannot render obvious incorporating a structurally distinct surfactant into the cell with significant and unexpectedly improved discharge capacity over a prolonged time period, as shown in Table 1.

Finally, the applicant questions whether JP '559 discloses an oxazoline in the first instance. Oxazolines have a characteristic five member ring structure that includes nitrogen and oxygen heteroatoms. Such a structure is not apparent from either the English abstract or

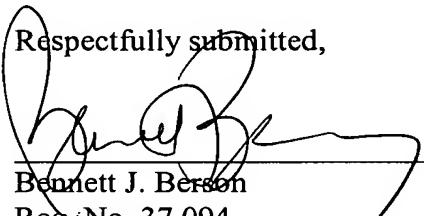
Japanese patent application provided by the Examiner. It is believed that the structures shown in JP '559 are fatty acid amides, not oxazolines.

Allowable subject matter

The Examiner indicates that Claims 3 and 11 which define a particular oxazoline surfactant are allowable. In view of the aforementioned claim amendments, applicant believes that Claims 3 and 11 are allowable as they stand and are not amended. New Claims 16 and 17, presenting the subject matter of Claims 3 and 11, respectively, in independent form, are also presented and are, likewise, believed to be in condition for allowance.

Having addressed each issue raised by the Examiner, applicant respectfully requests reconsideration of the merits of this patent application.

Respectfully submitted,



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